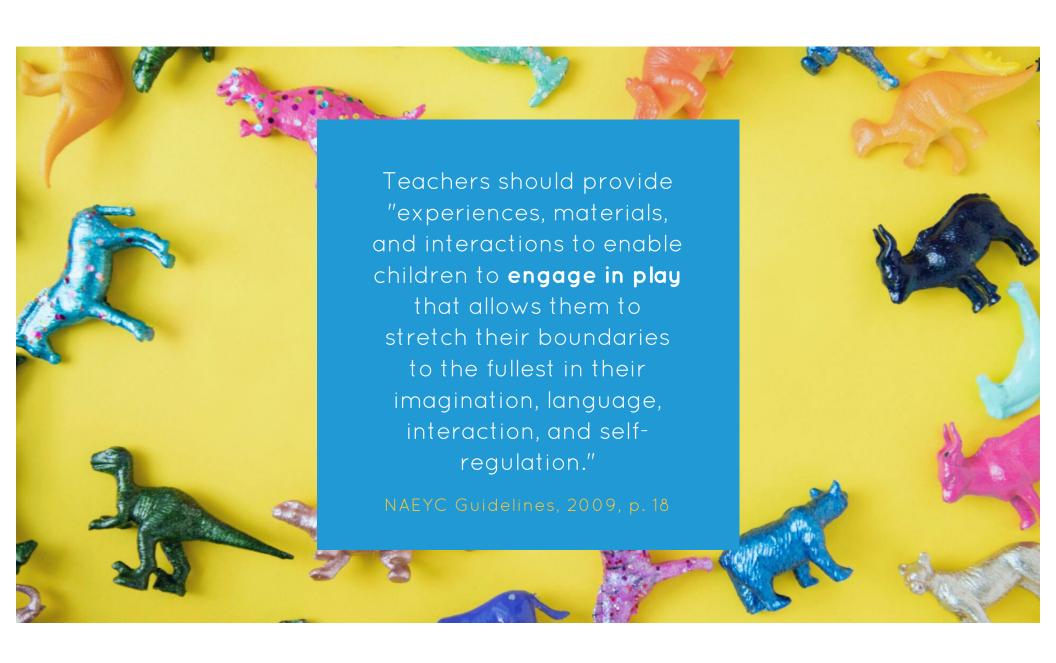
PRESERVING EARLY CHILDHOOD CONFERENCE

THE SCIENCE OF CHILDHOOD:

WHY PLAYFUL LEARNING IS SUCCESSFUL LEARNING

Dr. Rachel White, Ph.D.
MARCH 2019





Play is under siege.

Ziegler, 2004

TIME FOR PLAY IS DWINDLING.

In the last 20 years, play is down 8 hours per week.
Under pressure from rising academic standards,
play is being replaced by test prep.

What principals are saying about play...

Some understand the value of play...

Play is so
developmentally
important... I push for
play because
[kindergarten] has
become so academic.

Some don't...

I have to be honest.

We don't have kitchens or the house anymore in kindergarten because there was no time for that.

Many feel under pressure...

Now they've got to be at a certain level to be at the collegeready standard, to be ready for first grade. ... Much more of a focus on academic strengths and foundations for math.



Lieberman & Cook for New America, 2016

CLINICAL REPORT Guidance for the Clinician in Rendering Pediatric Care



The Power of Play: A Pediatric Role in Enhancing Development in Young Children

Michael Yogman, MD, FAAP," Andrew Sarner, MD, PhD, FAAP," deffrey Hutchinson Kathy Hirsh-Pasek, PhD," Roberta Michnick Galinkoff, PhD," COMMITTEE ON PSYC ASPECTS OF CHILD AND FAMILY HEALTH, COUNCIL ON COMMUNICATIONS AND MEDIA

Children need to develop a variety of skill sets to optimize their development abstract

Play is not frivolous: it enhances brain structure and function and promotes executive function (ie, the process of learning, rather than the content), which allow us to pursue goals and ignore distractions.

which allow us to pursue goins and ignore contractions. When play and stable, nurturing relationships are missing in a child's life, tools otness can disrupt the development of executive function and the learning of procedul braivary; in the presence of childhood adverse, play becomes even more important. The missual joy and shared communication and statement furnemoists server and return interactional that parents and children can experience during play regulate the body's stress response. The strategies and the later of the contraction o This clinical report provides pediatric providers with the information they need to promote the benefits of play and and to write a prescription for play at well visits to complement reach out and read. At a time when early childhood programs are pressured to add more didactic components and less playful learning, pediatricians can play an important role in emphasizing the role of a balanced curriculum that includes the importance of playful learning for the promotion of healthy child development.

Downloaded from www.aappublic PEDATRCS Volume 142, number 5, September 2018 e20182038

FROM THE AMERICAN ACADEM





CLINICAL REPORT

The Importance of Play in Promoting Healthy Child Development and Maintaining Strong Parent-Child Bond: Focus on Children in Poverty



Play is essential to the social, emotional, cognitive, and physical well-being of children beginning in early childhood. It is a natural tool for children to develop resiliency as they learn to cooperate, overcome challenges, and negotiate with others. Play also allows children to challenges, and negletate with others. Play also allows children to be orestive. It provisions inner four-nest to be fully engaged with their children, to bond with their children, and to see the world from the orprepative of lent richild inlewers, children who live in poverty often see sooicenomic obstacles that impact their rights to have big-time, the sall fitted fifther healthy social-entoland development. For children who are underresourced to reach their highest potential, it is essential that pearts, closections, and podarinous receiptive the importance of lifeting benefits that children gain from play. Pediatrica 2017;19:600-64-213

Prediction 2012 (29204—213)

More than 15 million children in the United States younger than 18 years live in poverty. These children experience disporting in education, health care and accessormer resources? "Shildren integration in education, health care and accessormer resources?" Shildren integration in education, health care and accessormer resources?" Shildren integration in the element season of important property may also be deprived of the benefits of sale and creative importance of policy deprivation may be substanted, because play is expected to the second certainty of the sale of the property of the pro spective as they engage fully with their children during playtime; all appeare as only diagonal may writ under under to uniting systems, as families deserve ready access to this bonding opportunity. Even be-fore the United Nations High Commission for Human Rights cited play as a right of every child, philosophers and psychologists, such as Plato, Piaget, and riedrich Frodel, recognized the importance of play in healthy child development.^{20–10}

This report addresses issues that may deprive children who live in poverty from gaining the maximum benefit from play. Because it follows an earlier report that focused on factors reducing free follows an earrier report that flooused on factors reducing free playtime for children whose families have resources, this report addresses issues specific to children from lower-income families. Although some of the factors covered in the previous report may also apply to children from lower-income and poor families, 3 issues disproportionately affect these children and merit special attention. First, access to recess and other in-school creative and physical

Regina M. Miltoer, MD. Kenneth R. Ginsburg, MD, MSEd, and the COUNCIL ON COMMUNICATIONS AND MEDIA and COMMITTEE ON PSYCHOSOCIAL ASPECTS OF CHILD AND FAMID' HEALTH

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e204 FROM THE AMERICAN ACADEMY OF PEDMITICS

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Prescriptions for Play!



Outline

What is playful learning?

How play supports STEM, literacy, self-control, and curiosity for all kids

Harnessing the power of guided play

Making playful learning visible

What is playful learning?

Active

Engaged

Meaningful

Involves free play, guided play, and games

What is guided play?

Free Play

Child-Directed
Child-Initiated

Guided Play

Child-Directed Adult-Initiated

Co-Opted Play

Child-initiated Adult-Directed

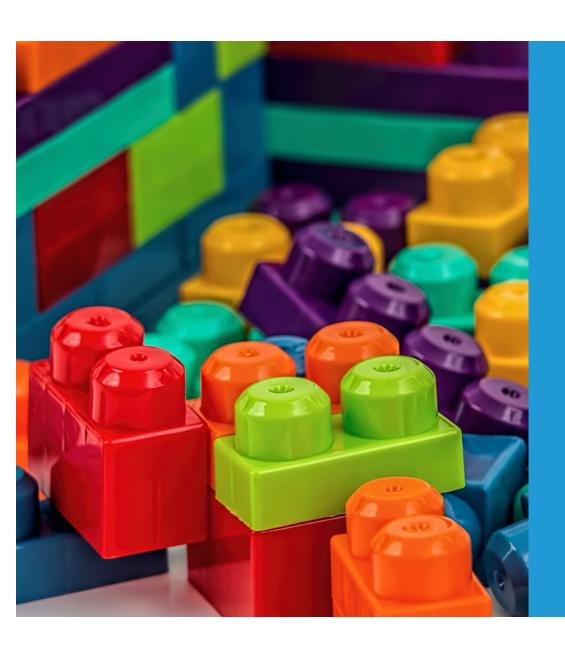
Direct Instruction

Adult-Initiated Adult-Directed



Can we really meet standards through play?

YES!!!



Building STEM skills

Children lay foundations for complex scientific thinking through experimentation, observation, and comparison.





MATH

During play, children explore shapes and patterns, compare magnitude, count, transform, and categorize.

EXPERIMENTATION

Play helps children learn to hypothesize, problem solve, and persevere through difficulty.

Language & Literacy

Play predicts reading comprehension as well as written and oral communication

Symbolic thought

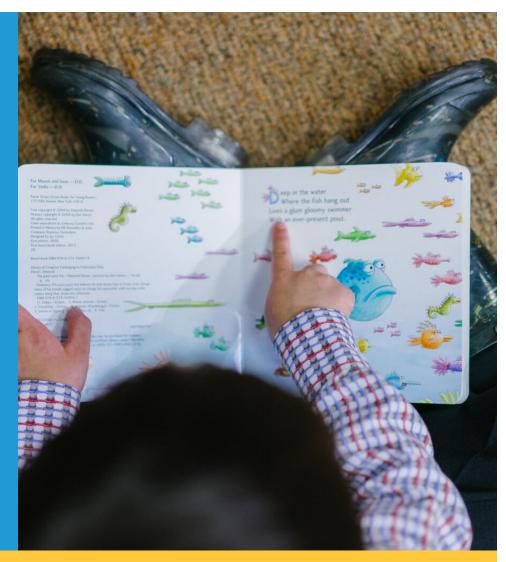
Letters and words represent concepts, objects, events

Social interactions

Social play encourages greater and more complex language use

Individual relevance

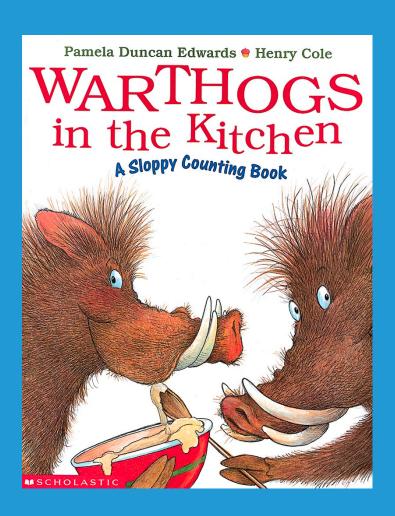
Allows for cultural and personal connection



Vocab Learning

An intervention for at-risk preschoolers

Compared to explicit vocabulary instruction, children who received shortened instruction + play time made larger gains on both receptive and expressive vocabulary





Learning to Regulate

Thinking flexibly

Children learn to think about alternatives

Working with others

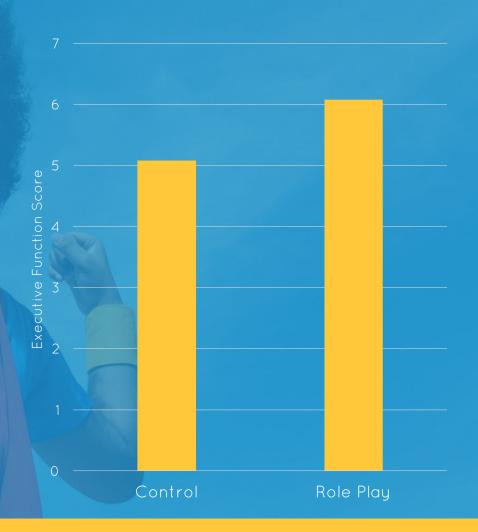
Play with peers requires inhibiting your desires for the greater good, cooperating, and negotiating

Dealing with emotions

Play helps kids cope with their feelings in a safe space

Role Play "THE BATMAN EFFECT"

Pretending to be a competent character, like Batman, helps children to think flexibly, work harder, pay attention, and regulate their emotions.



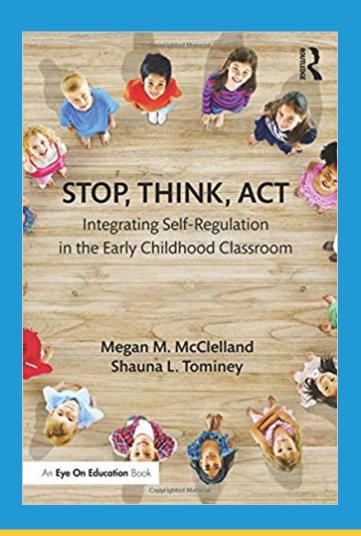
Sociodramatic Play

PREDICTS GROWTH IN EF SKILLS

The more children engaged in dramatic free play with their peers across the school year, the more they improved on measures of impulsivity



Thibodeau, White, Palermo, & Mikulski, 2019; Photo Credit: Claudia Sosa-Valderrama



Long-term impacts

Better regulation in pre-K leads to better K reading and math outcomes



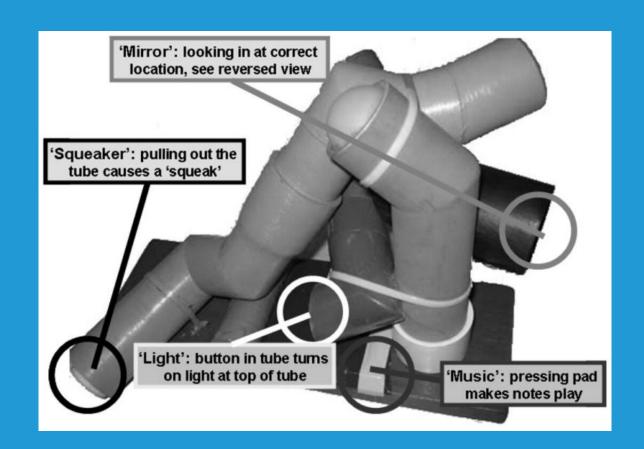
Fostering curiosity

PLAY IS FUN!

Children are intrinsically motivated to learn

Exploration

Play encourages experimentation and discovery.



Instead of focusing solely on academic skills... cultivating the joy of learning through play is likely to better encourage long-term academic success.

Yogman et al., 2018

Content + 21st century skills



Creativity



Critical Thinking



Communication



Collaboration



Play serves all children

BUT, WHO GETS TO PLAY?

Sadly, despite the fact that everyone can benefit from play, low income and ethnic minority children get less play time in school

Boston A CASE STUDY

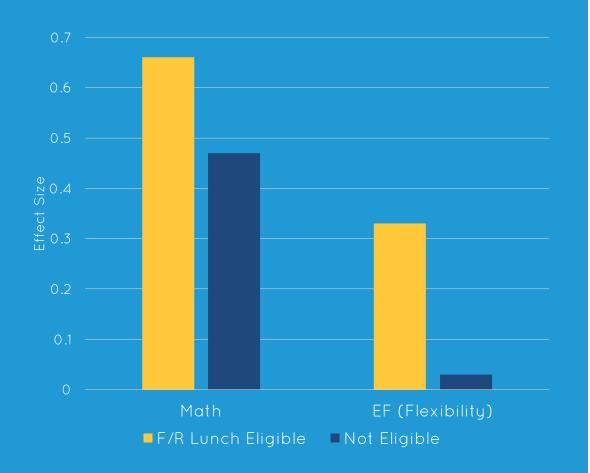
Implementing a high-quality, play-based curriculum produced largest math and literacy gains of any large pre-K program.

Also improved EF.



Boston A CASE STUDY

Particularly large gains for children from low-income and ethnic minority households, children with special needs, children with delayed language abilities, and dual-language learners





GUIDED PLAY

Adults need to be sensitive to the child's needs in the moment, flexible in how they intervene, & willing to follow the child's lead.

White, 2011

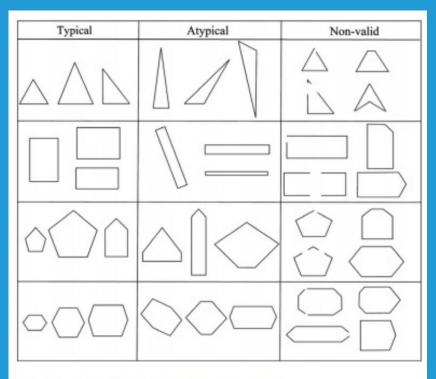


Figure 1. Stimuli for the shape-sorting task.

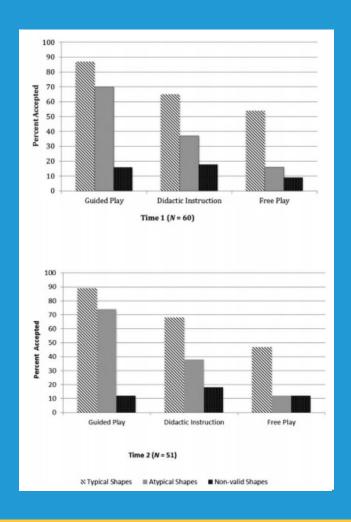
THE POWER OF GUIDED PLAY

Example: Shape learning

3 conditions:

- Guided play: discovered properties of shapes together as shape detectives
- 2. Direct instruction: teacher discovered shapes, child passive
- 3. Free play: played with shapes

How well did children learn shapes?



THE POWER OF GUIDED PLAY Example: Shape learning

Gentle guidance during play with shapes leads to *better* learning than direct instruction

Implementing playful learning



Observe



Provide materials and scaffold use



Get involved

Fight for children's right to play!

Gather Support

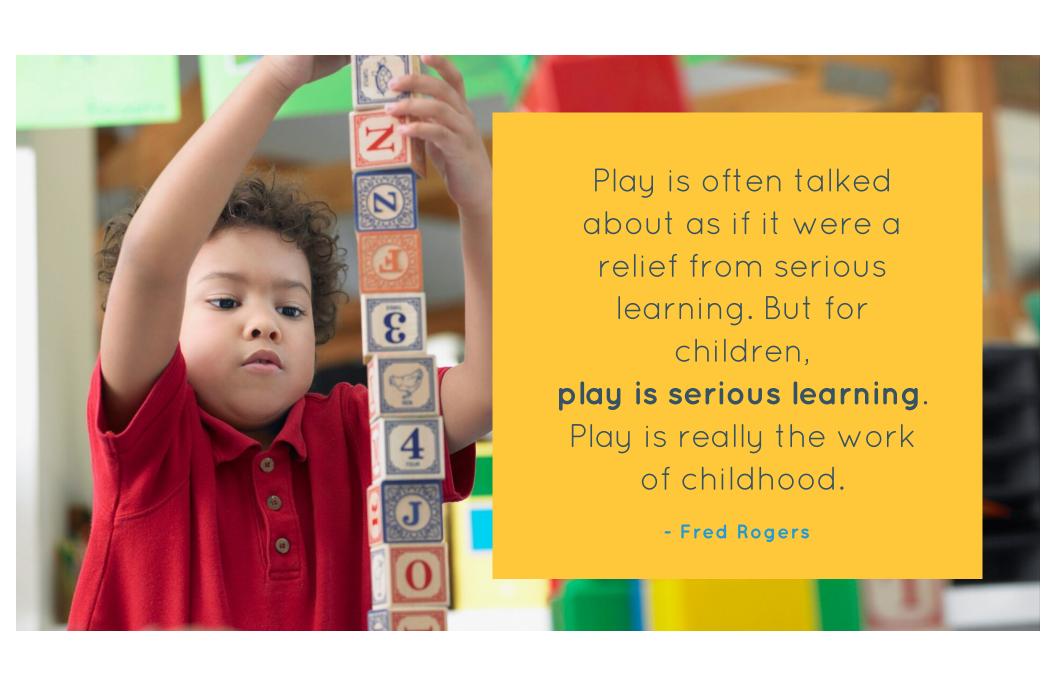
- Mentors
- Colleagues
- Administration
- Parents
- Community
- Policy makers

Keep Learning

- Stay up to date on developmentally appropriate practice
- Encourage others
 to do the same

Make Playful Learning Visible

- Document play
- Create exhibits of children's work and draw connections
- Share widely





Thank you!

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